

DUAL LEVEL OIL IMPELLER FOR DRIVE AXLE ASSEMBLY

ABSTRACT OF THE DISCLOSURE

A drive axle assembly includes an input operably coupled to a power source. The input drives first and second axle shafts, which in turn drive laterally spaced wheel ends. Each wheel end includes a gear set that is driven by one of the axle shafts. The axle shafts are enclosed within a center axle housing and the gear sets are enclosed within gear housings. The drive axle includes a pumping mechanism that maintains predetermined oil levels within the center axle housing and gear housings. The oil level in the center axle housing is lower than the oil level in the gear housing. The pumping mechanism includes an impeller that is mounted for rotation with the axle shaft. The impeller draws oil from the center axle housing into a cavity, which transfers the oil to the gear housing.

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